

3
23. A compound as claimed in claim 21¹ being 2-(1-methylimidazol-2-yl)-1-hydroxyethane-1,1-diphosphonic acid or a salt thereof.

24. A pharmaceutical composition for the treatment or prophylaxis of diseases associated with impaired calcium metabolism, containing a therapeutically effective amount of a compound claimed in claim 21¹ in the free form or in a pharmaceutically acceptable salt form, together with conventional pharmaceutical carriers.

5
25. A method of treating diseases associated with impaired calcium metabolism which comprises administering a therapeutically effective amount of a compound claimed in claim 21¹ in the free form or in a pharmaceutically acceptable salt form to a warm-blooded animal in need thereof.

REMARKS

In response to the Office Action dated October 4, 1989, Applicants respectfully request reconsideration and allowance of the above-referenced application in view of the amendments, the discussion presented and the Declaration submitted herewith.

The rejection of claims 1-20 under 35 USC 102(a) as anticipated by Bosies et al, U.S. Patent No. 4,777,163 is respectfully traversed.

Applicants submit herewith a claim for priority, certified copy of the priority document and certified translation of the priority document as kindly suggested by the Examiner in order to overcome the rejection. Additionally, Applicants have amended the claims to more clearly delineate the invention sought to be patented. New claims 21-23 are supported by Examples 3 and 10 of the instant specification and Example 4, first and third compounds of the priority document.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of the claims under 35 USC 102(a) as anticipated by Bosies et al, U.S. Patent No. 4,777,163.

The rejection of claims 1-20, as applicable to the presently pending claims, under 35 USC 103 as obvious over EPO 186,405 in view of Bosies et al, U.S. Patent No. 4,687,767 is respectfully traversed.

EPA 186,405 discloses the pyridyl analogs of the claimed compounds. Bosies et al teaches the next higher chain-homologs of the instantly claimed compounds. It is respectfully submitted that, accordingly, Bosies et al represents the closest prior art for purposes of comparison.

Applicants submit herewith a Declaration under Rule 132 wherein the instantly claimed compounds are compared with the closest prior art compounds taught by Bosies et al with regard to inhibitory effects on the resorption of calcium from bone. The results therein clearly establish the surprising superiority of the instantly claimed compounds. Specifically, the 2-(1-methyl-imidazol-2-yl)-1-hydroxyethane-1,1-diphosphonic acid according to the instant invention is more active by a factor of 58 over the 3-(imidazol-2-yl)-1-hydroxy-propane-1,1-diphosphonic acid of U.S. Patent 4,687,767 and the 2-(imidazol-1-yl)-1-hydroxy-ethane-1,1-diphosphonic acid according to the instant invention is more active by a factor of 900 over the 3-(imidazol-1-yl)-1-hydroxy-propane-1,1-diphosphonic acid of U.S. Patent 4,687,767.

It is respectfully submitted that the foregoing establishes unexpected and surprising results over the closest prior art thereby overcoming the 103 rejection.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-20, as applicable to the presently pending claims, under 35 USC 103 as obvious over EPA 186,405 in view of Bosies ('767).

The rejection of claims 1-20, as applicable to the presently pending claims, under 35 USC 103 as obvious of CA 105:134140r is respectfully traversed.

CA 105:134140r is an abstract of DE 3,428,524 (a copy is enclosed herewith as requested by the Examiner) which is the German counterpart of U.S. Patent 4,687,767. Therefore, the Declaration under Rule 132 is sufficient evidence of unobviousness to overcome this rejection for the reasons set forth hereinabove.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of claims 1-20, as applicable to the presently pending claims, under 35 USC 103 as obvious over CA 105:134140r.

The rejection of claims 1-6, 19 and 20 under 35 USC 112, first and second paragraphs is no longer warranted in view of Applicants' amendment.

"in particular" No longer appears in the claims. An intended use, effective amount of active ingredient and host are now provided.

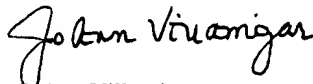
Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejection of the claims under 35 USC 112, first and second paragraphs.

The rejection of claims 2 and 3 under 35 USC 112, fourth paragraph is rendered moot by cancellation thereof.

Additionally, Applicants wish to call the attention of the Examiner to copending application Serial No. 354,053 filed May 19, 1989.

In view of the foregoing, Applicants contend that the presently pending claims are free of the cited art and otherwise in condition for allowance. Early favorable action is respectfully solicited.

Respectfully submitted,



JoAnn Villamizar
Attorney for Applicants
Reg. No. 30,598

CIBA-GEIGY Corporation
7 Skyline Drive
Hawthorne, New York 10532
(914) 347-4700 Ext. 7121
JV/ak/c:1289
Encl.

JAN 03 1990